Social interactions for economic value? A marketing perspective

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Chapter 5

I belong, therefore I pay

Assessing the economies of scope in focused social network sites

Abstract

In view of the growing number of online social network sites (SNS) and their struggle for profitability, the aim of this study is to expand our understanding of viable value propositions for the specific context of niche SNS. We also investigate how perceived customer value can be translated into economic returns for niche SNS operators. Building on previous conceptual models which adopted social capital theory as a value proposition for online communities, we add the concept of entitativity to capture the distinctive and narrow scope of a niche. A survey among 5,738 members of a niche SNS reveals that entitativity and social capital directly impact members' willingness to invest in memberships fees. Moreover, whether realized economic and social customer value can explain this willingness depends on the type of customer relationship (i.e., free versus fee-paying member). Implications for theory and practice are discussed[6].

[6] This chapter is based on a paper that is co-authored by W. van Dolen & K. de Ruyter, which is currently being prepared for submission to an academic journal. The authors would like to thank Astrid Huijssoon for her valuable contribution to the implementation of this research.

Introduction

According to a recent comScore report (2011), online social network use is globally on the rise. More specifically, by the end of 2010 almost 90 percent of North American internet users had profiles on social network sites (SNS), closely followed by Europe, where penetration by then had reached 84.4 percent. SNS are online communities that facilitate communication and interactions among members and allow them to share personal content (Enders, Hungenberg, Denker and Mauch, 2008; Trusov, Bucklin and Pauwels, 2009). They thereby enable members to "build and maintain a network of friends for social and professional interaction" (Trusov et al., 2009: 92). While the SNS landscape today is dominated by few big global players, including Facebook, MySpace, and LinkedIn, many small sites are competing for a share of the market as well, sometimes by explicitly targeting a narrow audience (boyd and Ellison, 2008; Sharp, 2009). Rather than being everything to everyone, MiGente, for example, is a niche SNS targeting the Latino-American community, and Ravelry appeals to those who enjoy knitting and crocheting and like to share their experiences with others. Individuals can even create their own niche social network on Ning against payment of a fee.

In view of increased competition and limited knowledge with regard to sustainable online business models, SNS providers are looking for value propositions to attract and retain members profitably. This is not only challenging because of large SNS dominating the market, but also due to the nature of value creation in online social networks. While generally the main value proposition offered by SNS is connectivity, the narrow scope of niche players requires the identification of a more distinctive proposition which reflects a specific purpose or scope narrowly defined segments can identify with. Niches have been defined as "a small group of customers with similar characteristics or needs" that are not served well by competitors (Dalgic and Leeuw, 1994: 40). On the one hand, the practitioner community predicts a growing popularity of niche SNS in response to mega networks such as Facebook or MySpace, where many people feel uncomfortable sharing information (Holahan, 2007; Sharp, 2009). On the other hand, preliminary research suggests that members of niche SNS may experience inconvenience in the form of trade-offs or high

switching costs related to the narrow focus (Aschoff, Aschoff and Schwabe, 2010), which raises questions regarding the potential success of highly targeted networks, also with regard to their economic payback. While currently many SNS services are free for consumers, providers' desire to capitalize on members' online interactions has brought forward new online business models. One example is the 'freemium' strategy, where basic service is available for consumers for free, whereas upgraded, premium services are only accessible against payment of a subscription fee (Dou, 2004; Enders et al., 2008; Ritzer and Jurgenson, 2010). Many social network providers are struggling, though, to upsell users from a free account to paying subscription fees, a question that seems even more pressing for niches. While large SNS may benefit from economies of scale as the value of an online network increases with a growing member base (Aschoff et al., 2010), niche SNS need to rely on economies of scope, as they deal with a rather narrow group of members. Insights on the economic returns for niche SNS are rudimentary and at best inconclusive. While Enders et al. (2008) suggest that advertising revenue is mainly put aside for networks with large user bases, Sharp (2009) asserts that advertisers are willing to pay premium prices to reach a narrowly defined audience. Moreover, while revenue models based on paid subscriptions were suggested to depend on a "critical mass of users" for SNS more generally (Enders et al., 2008: 209), it is unclear whether and how this works for niche SNS, which need to focus on scope rather than scale. Therefore, the objective of this study is to gain insight with regard to how economies of scope can be realized for focused niche SNS.

The emerging literature on online communities adopted social capital theory as a lens to study viable value propositions for online providers. In particular, studies focusing on a variety of online communities have shown that the value inherent to social capital can explain members' contributions to online networks in terms of knowledge sharing and commitment (Chiu, Hsu and Wang, 2006; Mathwick, Wiertz and de Ruyter, 2008; Wasko and Faraj, 2005). They did not consider, however, its potential conversion into economic returns for members or SNS providers. Moreover, while social capital created in an online community context has usually been discussed in terms of consequences at the individual level, it may as well affect higher levels, namely the community as an entity. Drawing on qualitative research, Mathwick et al. (2008) identified the existence of such a genuine community based on strong feelings of 'we-ness' in the context of a highly focused online (niche) community, and described it as a consequence of social capital. Rather than

considering it as an outcome, we are interested in the potential role of such a group feeling, which still requires a proper definition, to serve as a value proposition for members of a niche SNS. Therefore, by extending the social capital perspective, this study aims to broaden existing theories on value propositions for SNS, particularly with regard to niches. Specifically, our study aims to make the following two substantive contributions to the marketing literature:

First, we introduce the concept of entitativity, which enjoys growing popularity in psychology (cf. Yzerbyt, Castano, Leyens and Paladino, 2000), but still needs to find its way in the marketing literature. The concept has been described as "(t)he degree to which a collection of persons are perceived as being bonded together in a coherent unit" (Lickel, Hamilton, Wieczorkowska, Lewis, Sherman and Uhles, 2000: 224), or simply the "groupness" of a group (Hamilton, Sherman and Castelli, 2002: 140). Entitativity hence serves as an excellent reflection of the strong group feeling identified by Mathwick et al. (2008). It also describes the scope of a niche, characterized by a homogeneous group that offers distinctiveness to its members (cf. Correll and Park, 2005), and encourages social cohesion (Aschoff et al., 2010). As entitativity has mainly been studied from the perspective of how one evaluates other groups, while paying little attention to perceptions or evaluations of one's own in-group (Sherman, Hamilton, and Lewis, 1999; Yzerbyt et al., 2000), we attempt to contribute to the entitativity literature more generally as well. Moreover, to our knowledge, entitativity has not hitherto been applied in the context of online social networks.

Second, by studying whether entitativity and social capital can be transformed into economic value, we contribute to the ongoing academic debate that has been inconclusive with regard to whether and when subscription-based online revenue models can be successful (e.g., Dou, 2004; Enders et al, 2008; Lopes and Galletta, 2006; Papies, Eggert and Wlömert, 2010; Pauwels and Weiss, 2008). This research investigates whether entitativity and social capital may directly impact members' willingness to invest in a niche SNS, thereby influencing a niche SNS provider's financial returns. Moreover, it also suggests potential indirect routes by considering social and economic value as outcomes of entitativity and social capital. Finally, drawing on insights from the relationship marketing literature, which suggests heterogeneity among members of a network, we also

differentiate between free and upgraded fee-paying members, whose motivations for investing in memberships fees are expected to differ.

In order to achieve the aforementioned contributions, the remainder of this paper is structured as follows. The next section addresses the theoretical background and research hypotheses, followed by a description of the empirical study which was conducted among members of a niche SNS. The last section discusses the findings and implications of the study, including directions for future research.

Theoretical Background

Value propositions for niche social network sites

Social capital

Social capital, which has been identified as value proposition by previous studies on online communities (e.g., Chiu, Hsu and Wang, 2006; Mathwick et al., 2008; Wasko and Faraj, 2005), is regarded as a multi-disciplinary concept that has been applied predominantly in social sciences. The different perspectives taken by various disciplines and authors brought forward a variety of definitions, which, however, agree that relationships between and within groups can be regarded as a resource for social action (Nahapiet and Ghoshal, 1998). Nahapiet and Ghoshal (1998: 243) defined social capital as "the sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit". According to Adler and Kwon (2002) social capital is determined by the structure and content of one's social relations, which endow the actor with information, influence and solidarity, thereby creating value for the actor. For instance, research has confirmed that people use their personal contacts, and hence the social capital endowed in these relations, to find jobs, exchange resources, or for product innovations and entrepreneurship (Adler and Kwon, 2002).

The social capital concept it is often regarded as an umbrella theory which is based on a variety of concepts, including those describing the sources or process of social capital

creation and its outcomes (Glenane-Antoniadis, Whitwell, Bell and Menguc, 2003; Mathwick et al., 2008). In particular, social capital, which reflects one's likelihood or willingness to provide resources to connected others (Moran, 2005), is often described in terms of attributes such as social trust (Mathwick et al., 2008; Moran, 2005; Nahapiet and Ghoshal, 1998; Tsai and Ghoshal, 1998; Wasko and Faraj, 2005), norms and sanctions (e.g., the norm of voluntarism), obligations and expectations (e.g., the obligation to reciprocate), identification (Mathwick et al., 2008; Nahapiet and Ghoshal, 1998), and commitment (Wasko and Faraj, 2005), which are combined differently in a variety of studies. While these dimensions differ conceptually, they are undoubtedly connected: members of a social community are willing to provide favors to other members, even to strangers (i.e., voluntarism), as they believe (i.e., trust) that those favors will be returned by some community member in the future (i.e., reciprocity). In other words, exchanges between members are facilitated by trust, which is safeguarded by established community norms and sanctions for free riders (Oh, Chung and Labianca, 2004; Wasko and Faraj, 2005).

While most studies to date have discussed social capital in offline contexts, such as neighborhood communities or work groups, researchers have recently started to investigate social capital production in online environments. Several studies in this field focused on social capital as a driver of knowledge sharing. For instance, Wasko and Faraj (2005), who investigated an online network linking members of a legal professional association in the U.S., concluded that online social capital can spur knowledge exchange. Similarly, Chiu, Hsu and Wang (2006) found that tie strength, as well as reciprocity and identification enhanced the quantity of knowledge shared, while trust only had a positive impact on the quality of knowledge contributed to a professional online community. A different outcome focus was taken by Mathwick et al. (2008) who studied the impact of social capital on the values derived for the members of a peer-to-peer problem solving community, and how those benefits in turn influenced their commitment towards the group. The authors (p. 842) concluded that online communities are governed by norms that "impose a moral responsibility to volunteer, to reciprocate, and to act in a trustworthy manner", three attributes that are considered relevant for the current study on SNS as well. While not investigated further by Mathwick et al. (2008), a qualitative exploration of members' interactions on the site suggests the existence of a strong group feeling and collective sense among expert members that differentiates them from other, non-

community members. Following up on this finding, entitativity is introduced as a novel value proposition in this study.

Entitativity

While the concept has been developed more than 50 years ago by D.T. Campbell (1958), only recently entitativity has been re-discovered, mainly by the psychology discipline, to explain group perceptions, their antecedents and consequences (Igarashi and Kashima, 2011; Sherman et al., 1999). Campbell (1958: 17) defined entitativity as "(t)he degree of having the nature of an entity, of having real existence", describing to what extent aggregates of people can be described as a single meaningful and ongoing entity, being bonded together in a coherent unit (Lickel et al., 2000; Sherman et al., 1999; Stenstrom, Lickel, Denson and Miller, 2008). The degree of entitativity differentiates perceptions of mere aggregates or collections of individuals, such as people waiting at a bus stop (Igarashi and Kashima, 2011) from unified groups that are perceived as meaningful entities, such as a football team (Lickel et al., 2000). Drawing on Gestalt principles, Campbell (1958) identified several characteristics that influence individuals' perceptions of entitativity, including similarity and proximity among individuals or sharing a common fate (e.g., collective goals) and collective movement. Additional cues for perceptions of high entitativity were discovered by Lickel et al. (2000), such as the degree of interaction among group members and the importance assigned to the group by its members. The main question that drove Campbell's investigations were how such cues are used by individuals to attribute the quality of 'groupness' to an aggregate of individuals (Hamilton et al., 2002: 140). Other aspects, such as the size of a group or its tenure of existence were either unrelated to the level of perceived entitativity, or caused conflicting results (cf. Hamilton et al., 2002; Lickel et al., 2000).

Based on the level of perceived entitativity, groups have been categorized along a continuum ranging from high to low levels of entitativity, namely intimacy groups, social categories, task groups and loose associations. Typical examples comprise members of a family, friends or romantic relationships for intimacy groups, a common nationality, ethnic or professional background for social categories, an airline flight crew or a company committee for task groups, and people at a bus stop or a cue at the bank for loose

associations (Lickel et al., 2000; Sherman et al., 1999). It has been suggested that social rules governing interactions among members may differ for those groups in a way that intimacy groups may be dominated by communal exchange principles, whereas task groups may be regulated rather by equity principles (Lickel et al., 2000). As entitativity strongly builds on literature describing how individuals perceive groups they do not belong to (i.e., out-groups), past research has paid little attention to the consequences of entiatitivity for in-groups, which are groups one belongs to (Sherman et al., 1999; Yzerbyt et al., 2000).

Online SNS differ widely in terms of size or purpose and hence may range from tight-knit entities to loose aggregates of anonymous members. Entitativity, to our knowledge, has not been applied in research on online social networks. An exception is a study by Mathwick et al. (2008: 843), which found evidence for a "strong group feeling" or "we-ness", however, did not refer to the concept explicitly. A study by Sohn (2009) mentioned entitativity in this context, however, conceptualized it as network density and thus as the strength of connections rather than an overall perception of being a group. Moreover, entitativity has been studied from the perspective of offline social networks, with individuals judging other groups based on the representation of abstract network graphs (Igarashi and Kashima, 2011). Findings suggest that network entitativity depends strongly on the level of interaction among members. Moreover, the authors conclude that in very small networks (i.e., up to five members) perceptions of entitativity may be based mainly on ties among dyads, whereas for larger networks (i.e., up to 150 members) entitativity perceptions depend on how social connections are organized into a meaningful unit. These findings underline the importance of considering the concept of entitativity in research on SNS, as it extends the idea of relationship dyads which has received quite some attention by researchers who focused on tie strength in online contexts. Moreover, the distinctive scope denoted by a highly entitative group could serve as an important value proposition for niche SNS, and may hence be key for a successful online revenue model.

Economic returns through subscription fees

In this research, SNS providers' economic return on investment is conceptualized as members' willingness to invest (WtI) in the SNS, either by showing intentions to upgrade their current free accounts to a fee-based account, or by deciding to extend their paid

membership period. According to recent studies, the 'free-mentality' on the internet makes it difficult or even "impossible" for SNS providers to charge membership fees (Dou, 2004; Pauwels and Weiss, 2008; Ritzer and Jurgenson, 2010: 28). Dou (2004), for instance, reported a study according to which 69 percent of respondents announced they were not willing to pay for online services. While many academic studies have discussed consumers' WtI in the context of e-commerce or online brand communities, users' WtI for online content has received considerably less attention, not to mention to the specific case of SNS, where value is co-created by users themselves. Different from traditional marketing contexts, where WtI has received a lot of attention, the peculiarities of online content or value as a paid product (e.g., lack of uniqueness, many alternatives and little differentiation) constitute challenges for online service providers (Dou, 2004). The few studies available on this topic either focused on price promotions and marketing communications, the quality of the content or service (e.g., up-to-date, superior or exclusive content) or perceived risks with regard to online credit card use or unknown brands (Dou, 2004; Pauwels and Weiss, 2008; Wang, Ye, Zhang and Nguyen, 2005). While most of these factors can be reasonably controlled by the online content provider, operators of online SNS depend on the value proposition of connectivity, and have to rely on members' willingness to contribute to the group and to stay loyal and/or pay subscription fees. Surprisingly little is known regarding how to transform social interactions in online communities into benefits for profit-oriented providers, a process that requires "a deep under-standing of the economic and social motivations of the participants" (Balasubramanian and Mahajan, 2001: 104). An exploratory case-study investigation by Enders et al. (2008) suggests that the success of paid subscription models for SNS may, among more functional factors, also depend on members' trust in other users and the platform, as well as on their social interactions and network ties. As these factors are reflected by social capital and entitativity, it is argued that both concepts will drive niche SNS members' willingness to pay subscription fees.

Hypotheses Development

The direct route

Entitativity and Willingess to Invest (WtI)

Due to the meaningfulness and coherence conveyed by highly entitative groups, they are generally perceived as very stable, controllable and predictable, which are characteristics that are generally highly valued by group members (Sherman et al., 1999). Therefore, highly entitative groups have been suggested to serve their members better than groups that are perceived low in entitativity (Yzerbyt et al., 2000). As members strive for continuity and permanence of groups from which they derive value, and wish to protect them from intruders or change, they are generally very committed and willing to invest in groups they perceive as highly entitative (Sherman et al., 1999). Or as Yzerbyt et al. (2000: 286) put it: "Clearly, entitativity cements the members to their group". Drawing on this reasoning, we expect members of a SNS who perceive their network as a meaningful and ongoing entity to commit time and resources to safeguard the valuable group feeling. As in the freemium business model advanced functionalities and possibilities for interaction are usually restricted to upgraded members who pay subscription fees, it is anticipated that members with high entitativity perceptions show higher WtI in the SNS to ensure multiple and sustained interactions with their network.

> *H_1: Entitativity will positively impact SNS members' intentions to invest in an online social network.*

Social capital and Willingess to Invest (WtI)

Social trust, the first social capital dimension considered in this research, has been described as the belief that others are open, competent, reliable and have good intentions, which moderates the risk of vulnerability and in turn enhances communication, resource exchanges and cooperation (Bolino, Turnley, and Gloodgood, 2002). Trust has been described as a main driving force for online financial transactions (Enders et al., 2008), and

is expected to be an important factor impacting SNS members' decision whether to pay subscription fees or not. If members do not trust the site operator or other members in the social network, they will perceive a higher risk with regard to committing financial resources when paying subscription fees. The second social capital dimension, reciprocity, has been regarded as a norm of mutual indebtedness, inferring that members of a social network strive to reciprocate favors or benefits they have received from others (Wasko and Faraj, 2005). This norm of felt obligation ensures a stream of ongoing exchanges, including favors that may be returned to the sender directly, or the community more generally. The latter notion, also termed generalized reciprocity, assumes that members of a social network make resources available to others at a personal cost, while expecting that they will be repaid at some point in the future (Mathwick et al., 2008). Third, community voluntarism, which has been described as "proactive engagement in community life", includes the voluntary provision of time and effort with the intent to benefit others (Mathwick et al., 2008: 834). The dimensions reciprocity and voluntarism are both likely to drive social interactions as SNS members perceive a moral duty to reciprocate the value they receive by volunteering their time or efforts (cf. Mathwick et al., 2008). These felt moral obligations ensure an ongoing stream of interactions, which, according to Enders et al. (2008: 207), may create "unique customer value" and hence positively affect members' WtI in SNS by paying subscription fees. Similarly, Cova and Dalli (2008) argued that consumers' participatory role in the value creation process increases their WtI, as consumers' active engagement enhances their commitment towards the process of co-creation and enables them to identify more easily with the outcome of their collaborative efforts. In conclusion it can be stated that social capital, through its three components, is expected to drive SNS members' WtI in membership fees.

> *H_2: Social capital will positively impact SNS members' intentions to invest in an online social network.*

The indirect route

The indirect route suggests that entitativity and social capital will result in specific value for members, which in turn will favorably affect their WtI. In 2001, Balasubramanian

and Mahajan stressed the need for more insights into members' social and economic motivations for participating in online communities in order to understand how such social interactions can derive economic returns for businesses. Since then, recent studies in this field have identified a variety of drivers for user participation, including functional/instrumental, social and hedonic benefits (Bagozzi and Dholakia, 2002; Dholakia, Blazevic, Wiertz and Algesheimer, 2009; Wang and Fesenmaier, 2004). Social benefits are described as socializing and building relationships with others, resulting in an increased social network and the enjoyment of communication. Functional benefits, on the other hand, are mostly associated with users' access to valuable information provided by other community members, and have also been termed informational value by Matwick et al. (2008). Interestingly, despite an acknowledgement of members' instrumental motivations for participating in online communities, the explicit notion of economic motives advocated by Balasubramanian and Mahajan (2001) has been largely neglected by recent research.

In order to streamline the variety of potential benefits identified in previous studies, we draw on the relationship marketing literature which describes the dichotomy of social and economic value (Gassenheimer, Houston and Davis, 1998). Online social communities are about building relationships, suggesting that the relationship marketing literature may provide valuable frameworks to explain why customers develop and maintain relationships, potentially by paying subscription fees in order to maintain their online social networks. In particular, we draw on a framework developed by Gassenheimer et al. (1998), which suggests that a combination of social and economic value is necessary to sustain most relationships. According to the authors, these two values can be regarded as two extremes on a continuum describing the relational distance between two parties. Consequently, if a relationship is characterized by a high level of social value for the partners, the level of economic value will be rather low, and vice versa.

Entitativity and social value

Social value or benefit has been described as communicating or getting involved with others, thereby receiving help and social support, camaraderie, friendship and intimacy (cf. Dholakia, Bagozzi and Klein Pearo, 2004; Mathwick et al., 2008; Wang and Fesenmaier, 2004). Relationships yielding such benefits are usually characterized by a high level of

closeness, group solidarity, expectations that exchanges will be continued in the future, and strong prevailing norms of giving and receiving for the group's well-being (Gassenheimer et al., 1998). These characteristics that are typically inherent to entitativity and social capital.

Following the entitativity literature, groups perceived as high in entitativity due to high degrees of interaction, common goals and outcomes, should derive higher value for their members compared to less entitative groups (cf. Sherman et al., 1999). This reasoning has been explained by the causal link between entitativity and benefits derived from group membership as identified in other literature streams. For instance, identification with one's in-group has been identified not only as antecedent, but also as potential consequence of entitativity (Yzerbyt et al., 2000). According to social identity theory, identification with one's in-group can increase self-esteem, and at the same time aids in distinguishing one's group from other, out-groups, which causes a more favorable evaluation of one's in-group (Ashforth and Mael, 1989; Yzerbyt et al., 2000). Yzerbyt et al. (2000) argued that high entitativity is thus more likely to strengthen one's self-esteem, need for inclusion and aim to differentiate one's group from other groups. Moreover, investigations of the four groups that constitute the entitativity continuum described earlier, suggest that high social identity value is mainly derived from intimacy groups. These groups are evaluated as extremely important by group members and represent high levels of entitativity (Yzerbyt et al., 2000). As high entitativity is usually associated with intimacy and friendship, we hypothesize that entitativity will be positively related to social value.

H_3: Entitativity will positively impact SNS members' social value.

Social capital and social value

Social capital has been defined as an intangible resource that potentially creates value for members of a social network (Adler and Kwon, 2002; Wiertz and de Ruyter, 2007). Or as stated by Mathwick et al. (2008: 835): "The use of the term 'capital' implies that it is not a good in and of itself but a means to a set of outcomes". Among the benefits to be derived from social capital that have been discussed most frequently in the literature are (1) access to a variety of information sources, which may enhance the quality, importance and timeliness of information and (2) solidarity, which is strengthened by strong social norms

and a high degree of closure[7] (Adler and Kwon, 2002). Similarly, Bourdieu (1986) discussed "material profits" and "symbolic profits" as social capital outcomes. While such benefits are most frequently mentioned in the context of social capital created offline (e.g., in neighborhood communities, company networks), Mathwick et al. (2008) investigated informational and social benefits in the context of online communities. Their empirical study demonstrated that social capital, which was significantly predicted by the components trust, voluntarism and reciprocity, drives users' perceptions of informational and social value. We aim to replicate these findings for social value and therefore hypothesize:

H_4: Social capital will positively impact SNS members' social value.

Entitativity and economic value

While extant research on the benefits to be derived from online communities discussed functional or instrumental benefits, to our knowledge, economic value as such has not been studied so far. Rather than regarding functional value, such as sharing or accessing relevant information, as an end in itself, this study considers it as means to an end, potentially resulting in an economic advantage for the actor. In the context of online SNS, we define economic value in terms of direct and indirect financial benefits, such as saving money due to valuable information provided by other network members, or realized benefits in the area of work, studies or accommodation. Therefore, while functional value considers access to superior information as a benefit in itself, economic value, as defined in our study, describes an effectively realized benefit in terms of financial advantages, reflecting the implications of informational value.

We hypothesize that the benefits and value to be derived from high levels of entitativity will not only be restricted to the social sphere, but encompass economic advantages for group members as well. The entitativity literature suggests that for high entitativity, perceptions of the in-group are positively biased in a way that members

[7] Another social capital benefit frequently mentioned is the potential to exercise power, control and influence, caused by other network members' obligation to reciprocate based on an ongoing history of interactions (Adler and Kwon, 2002).

perceive the group as more capable of realizing positive achievements relative to in-groups low in entitativity (Sherman et al., 1999). Yzerbyt et al. (2000) argued that high entitativity perceptions may increase members' expectations that the group will act upon its intentions, and that it is more likely to accomplish its goals. According to the authors, it is this potency and efficacy of groups that attracts members to join, not only the desire of belonging to a group. It is therefore expected that the positive bias towards a highly entitative in-group with regard to its perceived efficiency, potential and readiness to act will influence SNS members' evaluations of the economic value they realized by participating the group. Moreover, it has been demonstrated that friendship relations, which are representative of high levels of entitativity (Lickel et al., 2000; Sherman et al., 1999), can have a favorable impact on business outcomes, but only if role conflict is perceived as low. This positive effect has partly been attributed to high levels of loyalty, helpfulness and openness among friends (Grayson, 2007). Drawing on the reasoning above we hypothesize:

H_5: Entitativity will positively impact SNS members' realized economic value.

Social capital and economic value

In the social capital literature functional benefits to be derived from access to information have been subsumed under the so-called "economic function of social capital" (Werner and Spence, 2004: 13). According to Bourdieu's overall perspective on capital, which comprises economic, social and cultural dimensions, social capital can, under certain conditions, be converted into economic capital. Bourdieu (1986: 47) described economic capital as "immedi-ately and directly convertible into money".

Literature on economic sociology has remained inconclusive on whether weak relationships (i.e., low levels of social capital) or rather strong ones (i.e., high levels of social capital) are more likely to create economic benefit. Proponents of weak tie theory have argued that sparse networks that are characterized mainly by arm's-length relationships, such as acquaintances, are more likely to result in information benefits and exchanges, due to access to more variety of information (cf. Adler and Kwon, 2002; Uzzi, 1999). Proponents of the strong tie approach, however, argue that embededdness of relations in social networks can positively impact trust and reciprocity, which facilitate the exchange of

private resources, which otherwise might be difficult to get hold of through market relationships (cf. Uzzi, 1999). Again others have suggested a combined approach (Uzzi, 1999), or state that the advantage of strong versus weak ties depends on other factors, such as the task to be addressed through a network.

In the context of online social capital, Mathwick et al. (2008) found that high levels of social capital effectuate informational value, supporting the strong tie approach. Drawing on these insights, we argue that access to information about job opportunities, special offers or business contacts will increase SNS members' likelihood of realizing actual economic benefits. We hence hypothesize that social capital will have a positive impact on SNS members' realized economic value.

H_6: Social capital will positively impact SNS members' realized economic value.

The moderating role of member heterogeneity in online social networks

Studies in the field of online services marketing have called for the development of differentiated strategies for new and established customers, as customer relationships unfold over time (Falk, Hammerschmidt and Schepers, 2010). In line with these studies we argue that the type of SNS membership – free versus fee-paying – will influence the effects of social and economic value on WtI. Falk et al. (2010), for instance, showed that functional-utilitarian benefits to be derived from e-service sites are more important for inexperienced users. For experienced, long-term users, on the other hand, higher-order benefits (e.g., hedonic benefit) gain increasing importance. The authors draw on Maslow's hierarchy of needs framework and explain that for experienced users fundamental needs have been satisfied, meaning that functional characteristics may cease to cause customer satisfaction. This finding is also supported by other studies stating that instrumental benefits are essential for consumers' first visit or choice of online service channels or communities (Dholakia et al. 2004). Similarly, for offline contexts, Garbarino and Johnson (1999) mention that psychological benefits may be stronger drivers of sustained subscriptions than financial ones. They discuss that consumers' relationships with companies can be regarded on a continuum ranging from transactional to relational exchanges, on which customers evolve over time. Drawing on the relationship characteristics of both types of relationship,

Gassenheimer et al. (1998) suggest that transactional exchanges are associated rather with economic value, whereas social value is more important for relational/communal relationships.

Building on those insights, we argue that SNS members' motivations to pay subscription fees will differ for 'regular members', who are currently using SNS services for free, and 'premium members', who are already paying fees and may decide to extend their subscription period, or not. In particular, we believe that premium members are comparable to experienced users, as the fact that they are already paying subscription fees is likely to be associated with increased use of the SNS, relative to regular members. In line with the literature discussed above, their relationships with other SNS members are hence likely to be communal, being described by a feeling of sincere concern for the exchange partner's welfare. As according to the communal principle exchange partners do anticipate future exchange, but do not expect to receive monetary re-payment in return for their help (Aggarwal, 2004; Gassenheimer et al., 1998; Ryu and Feick, 2007), economic value will not be a strong driver of premium members' WtI. Instead, we expect that social value will act as a primary motivator to ensure ongoing relationships with others. Support for this reasoning is provided by Bhattacharya (1998). Based on interviews with current paying members of a museum he concluded that tangible benefits such as discounts in the gift shop or not having to pay admission fees did not seem to drive their willingness to renew their subscriptions, as many of them left those benefits unused.

H_7: For premium members, social value will have a more positive impact on WtI than economic value.

Regular members, on the other hand, are expected to be rather inexperienced members of the SNS compared to premium members. In freemium-based business models the functionalities of SNS available to regular members are limited relative to those of members who pay subscription fees. Regular members' interactions in the online network will therefore be less frequent and intense and hence characterized by the principle of exchange relationships. Exchange relationships are described as interactions that are mainly motivated by self-interest, which implies that actors' primary goal is to maximize their own outcomes. In return for their support, actors often expect monetary and prompt

re-payment. As those relations are usually driven by economic value and one-time exchanges, exchange partners do not feel responsible for each other, a relationship that has been associated primarily with weak ties (Aggarwal, 2004; Gassenheimer et al., 1998; Ryu and Feick, 2007). In line with this reasoning it is expected that the primary motivational driver for regular members to upgrade their status by paying subscription fees are realized economic returns in the form of financial benefits, derived from previous interactions in the social network. Premium members enjoy the social benefits of more personalized interactions due to premium functionalities associated with an upgraded account. As regular members' possibilities to interact with other members are limited, they are expected to derive less social value, which is thus less likely to act as a driver for WtI.

H_8: For regular members, economic value will have a more positive impact on WtI than social value.

Methodology

Sample and procedure

Data for this study was collected among registered members of an online niche SNS with the primary purpose of helping members find and interact with former classmates and friends. Online niche communities have been defined based on their regional scope (e.g., global versus local), or specialization (Aschoff et al., 2010). The SNS investigated in this study predominantly serves a national member base of a European country. Moreover, registered members need to indicate which educational institutions they attended, which directs their connections to former classmates, and hence to a network that is narrowly defined. Registered members can create a personal profile, upload photos and other personal information, and they can use the online service either for free, or upgrade their account against payment of an annual fee. Upgraded members, whom we call premium members, enjoy certain benefits which are not available to non-paying, so-called regular

members, such as sending personalized messages or being able to see by whom one's profile has been viewed.

In cooperation with the SNS, a link to an online survey was posted in a newsletter sent out to registered members during a period of two weeks. Data collection resulted in 5,738 usable responses, including 3,458 regular, and 2,280 premium members. Overall, the dataset consists of more females than males, which is particularly true for premium members, who seem to be more likely to pay subscription fees (Table 12). With regard to age, the distribution of the sample is skewed towards higher age categories, which corresponds with the network operator's description of the distribution of the SNS's actual member base. This distribution might be explained by the specific purpose of the niche SNS we investigated, namely helping individuals to reconnect with former classmates and sharing memories of the past.

Table 12. Demographics

Gender	male	female	total		
Regular members	45.70%	54.30%	3458		
Premium members	37.30%	62.70%	2280		
Age distribution	**25 or less**	**26 - 35**	**36 - 45**	**46 - 55**	**56 or more**
Regular members	3.80%	9.90%	25%	31.20%	30.10%
Premium members	1.30%	6.80%	24.30%	35.90%	31.70%

Measures

All measures – with the exception of economic value – were adapted from existing studies to fit the context of our study. If not mentioned otherwise, seven-point Likert type scales were used for all items, anchored by strongly disagree/agree. The measures can be found in Appendix C.

Entitativity has been measured in a variety of ways in past research, ranging from single to multiple item scales (cf. Castano, Yzerbyt, Paladino and Sacchi, 2002; Hogg, Sherman, Dierselhuis, Maitner and Moffitt, 2007; Igarashi and Kashima, 2011; Ruthick, Hamilton, and Sack, 2008; Sohn, 2009). Drawing on prior studies we measured entitativity with three items, asking respondents to what extent they perceived that users of the SNS (1) formed an entity, (2) had a bond, (3) were a unity.

Social capital was measured by the three components identified by Mathwick et al. (2008), namely trust, reciprocity and volunteerism. Building on the measurement items used in their study, we developed three items for trust (e.g., integrity of SNS members, trust in information provided by other members of the site), three for reciprocity (e.g., importance of 'giving and receiving' on the SNS, contributing to the SNS) and five for voluntarism (e.g., helping others to find information). We hence modeled relational social capital as a formative latent construct determined by three reflective constructs.

Perceived value. The social value measure (3 items) was adapted from Mathwick et al. (2008), including items such as whether interaction with other SNS members results in perceptions of camaraderie, or to what extent members consider social contact with others as valuable. Economic value (4 items) has not previously been studied in this context and was therefore developed for this study. Drawing on our definition of economic value described earlier, namely realized direct and indirect financial benefits resulting from valuable information, we identified potential economic benefits to be derived from SNS by browsing various SNS. Based on members' activities on SNS such as LinkedIn, Facebook and other, predominantly domestic sites, several categories were identified, such as job- or study- related aspects, finding accommodation or receiving advice with regard to products. Many SNS even include separate sections for searching and advertising jobs, internships, apartments, or for buying and selling goods or services, reflecting existing demand for such services. Building on insights with regard to the type of information and goods exchanged online, the following four items were developed: (Recurring) contacts on SNS (1) resulted in commercial benefits, (2) gave me financial benefits, (3) provided me with advantages with regard to work, studies or accommodation, (4) offered me advice or products for which I otherwise would have had to pay.

Willingness to Invest (WtI), the dependent measure of our model, was assessed with a single item measure phrased "I am going to upgrade to premium membership soon" for regular members, and "I will extend my premium membership" for premium members.

Measurement Model and Analysis Approach

We employed partial least squares-structural equation modeling (PLS-SEM), a path modeling approach that is increasingly used in marketing and business studies (Hair, Ringle

and Sarstedt, 2011). Different from covariance-based (CB-)SEM techniques (e.g., Lisrel, Amos), PLS is more prediction oriented and aims to maximize the explained variance in the dependent outcomes (Hair et al., 2011; Henseler, Ringle and Sinkovics, 2009). While PLS-SEM is generally regarded as an alternative and sometimes complementary technique to CB-SEM (Chin, 2010), PLS-SEM is explicitly recommended for models including formative measurement constructs. This is particularly the case for second order molar models, where a second-order formative latent construct (in our case social capital) is formed by several first-order reflective latent constructs (i.e., reciprocity, voluntarism, trust) (Chin, 2010; Hair et al., 2011). We modeled the second-order construct by using the hierarchical component model, where the indicators of the first-order reflective constructs are repeated to measure the second-order formative construct (cf. Chin, 2010; Vlachos, Theotokis, Pramatari and Vrechopoulos, 2010).

Analyses were conducted using the SmartPLS 2.0 software (Ringle, C. M./Wende, S./Will A., 2005[8]). We followed the advocated two-step procedure of evaluating the measurement model first, followed by an estimation of the structural model (e.g., Chin, 2010; Hair et al., 2011; Henseler et al., 2009). While the results of the measurement model resemble the outcomes of principal component analyses, the path coefficients calculated as part of the structural model can be interpreted in a similar way as the beta coefficients in ordinary least squares regression (Naranjo-Gil, Hartmann and Maas, 2008).

Results

Measurement model evaluation

In order to assess the psychometric properties of the multiple item scales, we estimated the measurement models, separately for regular- and premium members, by calculating individual indicator reliabilities, composite reliability, convergent validity, and discriminant validity (e.g., Hair et al., 2011; Henseler et al., 2009). To do so we ran the PLS

[8] SmartPLS 2.0 (beta), www.smartpls.de.

algorithm (path weighting scheme) and bootstrapping procedure (500 samples) for both models.

To assess the reliability of individual items, we checked whether the loading of each item on its respective latent construct was higher than the recommended threshold of 0.7, which was confirmed for all item loadings for premium members. For regular members, only two item loadings fell slightly below this threshold (Tables 15 & 16). However, as all item loadings were significant (t-statistic > 1.96), and it is recommended to remove reflective items only if their loadings are smaller than 0.4, we decided to keep all items for further analyses (Henseler et al., 2009). Next, internal consistency was assessed by evaluating the level of the composite reliability (CR) scores for each latent construct. All constructs exceeded the recommended threshold of 0.7, which is considered satisfactory (Tables 13 & 14). CR scores are interpreted in a similar way as Cronbach's alpha, which are calculated by PLS as well and are reported in Tables 13 & 14. The level of convergent validity is indicated by AVE scores (average variance extracted). They indicate the amount of shared variance between reflective measurement items and their respective latent construct, and should be at least 0.5, which indicates that at least half of the indicator's variance is explained by the variance of its respective construct, and not by error (Naranjo-Gil et al., 2008). According to our analyses, all AVE scores are higher than 0.5 (Tables 13 & 14). Discriminant validity was assessed in two ways: first, according to the Fornell-Larcker criterion, each latent construct should share more variance with its own block of indicators than with any other latent variables from the model. Therefore, the AVE score of a latent variable should be higher than the construct's squared correlation with any other latent variable, which is confirmed for our models (correlations Tables 13 & 14). A second test to assess discriminant validity is that each indicator's loading should be higher than all of its cross-loadings with other latent variables. Observing Tables 15 & 16, it can be concluded that this is the case for all indicators. Overall, our assessment supports the reliability and validity of our reflective measurement models.

As suggested for formative measurement models, we also examined the degree of multicollinearity among the three social capital components (Hair et al., 2011). We calculated the variance inflation factor ($VIF = 1 / [1 - R^2]$), which should be lower than 10, or ideally even lower than 5 (Hair et al., 2011). Calculations showed that multicollinearity was

not a problem as the mean VIF for social capital was 1.87 for regular members[9], and 1.40 for premium members[10].

Table 13. Regular Members

composite reliability (CR), average variance extracted (AVE), cronbach's alpha (CA), correlations

	CR	AVE	CA	Vol	Trust	Recip	Ent	SV	EV	WtI
SC Voluntarism (Vol)	0.89	0.62	0.84	**0.785**						
SC Trust (Trust)	0.85	0.65	0.73	0.375	**0.806**					
SC Reciprocity (Recip)	0.81	0.59	0.66	0.443	0.334	**0.769**				
Entitativity (Ent)	0.95	0.87	0.93	0.412	0.280	0.306	**0.933**			
Social value (SV)	0.92	0.79	0.87	0.586	0.520	0.363	0.473	**0.891**		
Economic value (EV)	0.99	0.95	0.98	0.201	-0.03	0.099	0.366	0.160	**0.974**	
WtI	1	1	1	0.272	0.117	0.290	0.401	0.253	0.310	**1**

** numbers in bold refer to the square root of AVE scores*

Table 14. Premium Members

composite reliability (CR), average variance extracted (AVE), cronbach's alpha (CA), correlations

	CR	AVE	CA	Vol	Trust	Recip	Ent	SV	EV	WtI
Voluntarism (Vol)	0.90	0.64	0.86	**0.798**						
Trust (Trust)	0.85	0.66	0.74	0.465	**0.811**					
Reciprocity (Recip)	0.84	0.64	0.71	0.498	0.405	**0.797**				
Entitativity (Ent)	0.95	0.87	0.93	0.418	0.353	0.315	**0.933**			
Social value (SV)	0.93	0.81	0.88	0.572	0.589	0.394	0.464	**0.898**		
Economic value (EV)	0.99	0.95	0.98	0.180	-0.001	0.076	0.344	0.0922	**0.9743**	
WtI	1	1	1	0.317	0.261	0.255	0.332	0.329	0.027	**1**

** numbers in bold refer to the square root of AVE scores*

[9] VIF per social capital construct: $VIF_{RECIP} = 1.28$, $VIF_{VOLUNT} = 1.30$, $VIF_{TRUST} = 1.16$

[10] VIF per social capital construct: $VIF_{RECIP} = 1.39$, $VIF_{VOLUNT} = 1.48$, $VIF_{TRUST} = 1.34$

Table 15. Full correlation matrix (loadings and cross loadings) - Regular Members

	SC Volunt	SC Trust	SOC Value	ECO Value	ENT	SC Recip	WtI
Vol1	**0.800***	0.208	0.406	0.173	0.304	0.342	0.216
Vol2	**0.807***	0.222	0.410	0.157	0.305	0.309	0.209
Vol3	**0.776***	0.428	0.515	0.106	0.312	0.391	0.208
Vol4	**0.847***	0.381	0.542	0.163	0.364	0.393	0.213
Vol5	**0.685***	0.197	0.4080	0.203	0.330	0.288	0.227
Trust1	0.338	**0.794***	0.480	-0.047	0.212	0.271	0.088
Trust2	0.265	**0.847***	0.393	-0.071	0.182	0.247	0.058
Trust3	0.298	**0.776***	0.380	0.041	0.282	0.288	0.135
SV1	0.515	0.478	**0.851***	0.079	0.330	0.31	0.189
SV2	0.531	0.451	**0.917***	0.178	0.483	0.344	0.249
SV3	0.520	0.466	**0.904***	0.165	0.443	0.316	0.234
EV1	0.197	-0.034	0.154	**0.979***	0.358	0.094	0.295
EV2	0.193	-0.038	0.150	**0.984***	0.353	0.094	0.307
EV3	0.199	-0.030	0.155	**0.980***	0.354	0.102	0.309
EV4	0.195	-0.022	0.164	**0.953***	0.361	0.095	0.299
Ent1	0.372	0.263	0.432	0.344	**0.921***	0.286	0.366
Ent2	0.395	0.276	0.452	0.309	**0.927***	0.286	0.363
Ent3	0.386	0.247	0.441	0.370	**0.951***	0.285	0.392
Recip1	0.376	0.220	0.288	0.111	0.245	**0.790***	0.271
Recip2	0.223	0.211	0.212	0.030	0.170	**0.679***	0.171
Recip3	0.396	0.328	0.324	0.078	0.276	**0.830***	0.221
WtI	0.272	0.117	0.253	0.310	0.401	0.290	**1**

* *loadings significant with p = 0.01 (i.e., t-statistic > 2.58)*

Table 16. Full correlation matrix (loadings and cross loadings) - Premium Members

Item	ENTI	SC Recip	SC Trust	SC Volunt	SOC Value	ECO Value	WtI
Ent1	**0.926***	0.297	0.331	0.383	0.411	0.306	0.308
Ent2	**0.928***	0.302	0.343	0.406	0.472	0.281	0.335
Ent3	**0.946***	0.282	0.314	0.3811	0.415	0.351	0.285
Recip1	0.248	**0.818***	0.3116	0.427	0.318	0.065	0.240
Recip2	0.202	**0.719***	0.250	0.295	0.252	0.065	0.150
Recip3	0.293	**0.848***	0.392	0.451	0.360	0.055	0.212
Trust1	0.265	0.352	**0.811***	0.417	0.559	-0.033	0.257
Trust2	0.230	0.281	**0.844***	0.323	0.443	-0.039	0.176
Trust3	0.360	0.347	**0.776***	0.383	0.421	0.069	0.195
Vol1	0.339	0.363	0.271	**0.798***	0.386	0.190	0.207
Vol2	0.339	0.350	0.309	**0.816***	0.429	0.182	0.215
Vol3	0.323	0.462	0.485	**0.805***	0.527	0.091	0.306
Vol4	0.365	0.463	0.453	**0.851***	0.541	0.117	0.289
Vol5	0.300	0.328	0.304	**0.714***	0.376	0.152	0.238
SV1	0.336	0.357	0.564	0.534	**0.870***	0.022	0.323
SV2	0.474	0.367	0.504	0.510	**0.913***	0.120	0.288
SV3	0.442	0.335	0.519	0.498	**0.912***	0.108	0.274
EV1	0.312	0.065	-0.013	0.170	0.084	**0.969***	0.021
EV2	0.325	0.069	-0.011	0.168	0.075	**0.985***	0.021
EV3	0.324	0.075	0.004	0.177	0.094	**0.979***	0.031
EV4	0.341	0.085	0.013	0.186	0.105	**0.964***	0.033
WtI	0.332	0.255	0.261	0.317	0.329	0.027	**1**

* *loadings significant with p = 0.01 (i.e., t-statistic > 2.58)*

Hypotheses testing

Building on Mathwick et al.'s (2008) research, it was expected that social capital, modeled as a formative second-order latent construct, would be formed by three first order, reflective constructs. This assumption was tested together with hypotheses 1 to 5. To test our hypotheses we specified two structural models in PLS and performed separate analyses for regular members and premium members. This approach was necessitated by the difference in the phrasing of the outcome variable, willingness to invest (WtI), for regular and premium members. For each of these sub-samples, we ran the PLS algorithm as well as the bootstrapping procedure to obtain path coefficients, their respective t-values, and R^2 coefficients of the endogenous constructs (Hair et al., 2011). Similar to multiple regression, the quality of PLS models is evaluated based on the directions and significance of path coefficients, and the magnitude of R^2, which signifies the amount of variance in a construct that is explained by the model (Chin, 2010; Götz, Liehr-Gobbers and Krafft, 2010). While some experts suggest that there is no generally acceptable threshold for the size of R^2 (cf. Götz et al., 2010), a value of 0.20 is considered as high in consumer behavior studies according to Hair et al. (2011).

Consistent with Mathwick et al.'s (2008) research, our results confirm the three-dimensional structure of social capital, which is formed by voluntarism, trust and reciprocity (refer to Table 17 for beta coefficients and t-values). In line with hypothesis 1 and 2, entitativity and social capital positively impact SNS members' WtI. H_1 and H_2 are hence confirmed for regular and for premium members. The estimation of the two structural models also confirmed hypotheses 3 and 4, which suggested that entitativity and social capital will positively impact SNS members' social value. The explained variance in social value accounted for by entitativity and social capital is $R^2 = 0.47$ for regular members and $R^2 = 0.46$ for premium members. A positive effect of entitativity and social capital was also expected for economic value (H_5 & H_6). This hypothesis, however, was only confirmed for entitativity, (H_5), while the effect of social capital on economic value (H_6) was non-significant for regular and premium members. H_6 was thus rejected. For economic value, entitativity and social capital account for a R^2 value of 0.13 for regular members, and 0.11 for premium members, values than are considerably lower than those for social value.

To test H_7 and H_8, we observed the path coefficients and significance values for the effects of social and economic value on WtI. In line with H_7, for premium members the effect of social value (ß = 0.11; t = 3.74) had a more positive impact on WtI than economic value, which was even significantly negative (ß = -0.08; t = 4.23). In line with H_8, for regular members, economic value (ß = 0.19; t = 8.99) had a more positive impact on WtI than social value, which was non-significant (ß = -0.00; t = 0.20). The combined variance in WtI explained by our model, including entitativity, social capital, social and economic value, resulted in R^2 values of 0.21 for regular members and 0.17 for premium members. While the predictive quality of both models slightly deteriorates when the indirect factors social and economic value are excluded ($R^2_{Regulars}$ = 0.18; $R^2_{Premium}$ = 0.16), the effect sizes[11] of these differences are weak.

Table 17. Hypotheses testing - path analyses (Beta, t-value)

Path analyses		**Regular Members**		**Premium Members**		
Hypotheses	*Path*	*Beta*	*t-value*	*Beta*	*t-value*	*Outcome*
	SC Voluntarism -> Social Capital	0.670	75.533	0.618	62.678	supported
	SC Trust -> Social Capital	0.308	36.232	0.325	39.180	supported
	SC Reciprocity -> Social Capital	0.280	40.883	0.282	38.304	supported
H_1	Entitativity -> WtI	0.263	12.540	0.221	8.941	supported
H_2	Social Capital -> WtI	0.155	7.347	0.190	6.756	supported
H_3	Entitativity -> Social Value	0.225	14.747	0.205	9.675	supported
H_4	Social Capital -> Social Value	0.555	39.934	0.562	27.923	supported
H_5	Entitativity -> Economic Value	0.372	19.183	0.348	16.173	supported
H_6	Social Capital -> Economic Value	-0.014	0.679	-0.029	1.180	rejected
$H_{7\&8}$	Economic Value -> WtI	0.191	8.995	-0.082	4.229	H_7: supported
	Social Value -> WtI	-0.004	0.198	0.109	3.735	H_8: supported

[11] Effect size calculation: Cohen's $f^2 = (R^2_{full\ model} - R^2_{partial\ model}) / (1 - R^2_{full\ model})$

Figure 15. Regular members

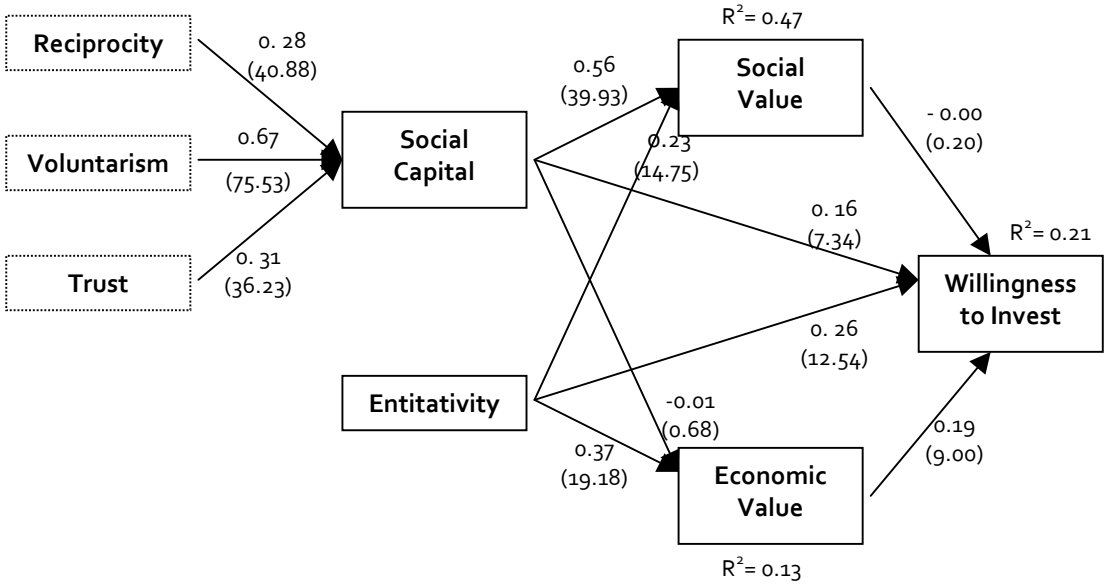
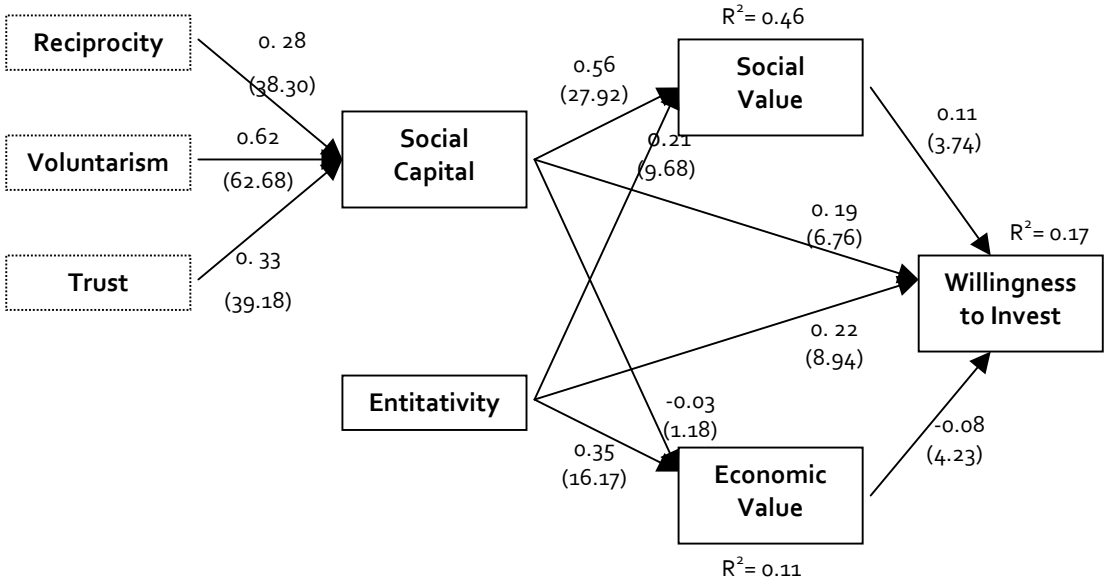


Figure 16. Premium members



Post hoc analyses

As we were interested in potential differential effects of entitativity for regular and premium members, we tested whether the effects of economic and social value respectively on WtI were moderated by entitativity. To do so, we extended our structural models for regular and premium members by including interaction terms for entitativity and

social/economic value respectively. We used the stepwise product term approach which is recommended for reflective PLS measurement models (Henseler and Fassott, 2010). For regular members, our results show significant and positive interaction effects for entitativity with social (ß = 0.05; t = 2.82) and economic value (ß = 0.08; t = 3.25), suggesting that both values have a stronger impact on WtI for members high in entitativity. For premium members, however, no significant interaction effect was detected for social (ß = -0.06; t = 1.36) or economic value (ß = -0.02; t = 0.82), indicating that the impact of benefits on their WtI is unaffected by the level of entitativity.

Discussion and Implications

Considering the growing number of online SNS and their struggle for profitability, the aim of this study was to expand our understanding of viable value propositions for different customer groups of niche SNS. Moreover, we also investigated how perceived customer value can be translated into economic returns for niche SNS providers. Our conceptual model builds on Mathwick et al. (2008), who adopted a social capital lens to explain customer value creation in online communities. To capture the distinctive scope of a niche, we added entitativity to this model, a concept from psychology that still needs to find its way into the marketing literature. Moreover, we – directly and indirectly – linked entiatitvity and social capital to members' willingness to invest in a niche SNS by considering the heterogeneity of customers in terms of their membership status. Based on the freemium business model of the niche SNS we investigated, where registered members participate in the network either for free (i.e., regular members), or decide to upgrade their account by paying subscription fees (i.e., premium members), two customer groups were considered.

This study contributes to the academic literature in several ways. First, it adds insights to the literature on value propositions for online communities by introducing entitativity. The concept describes to what extent a group represents a single, meaningful entity rather than a mere collection of individuals (Igarashi and Kashima, 2011; Lickel et al., 2000). It hence captures the narrow scope of a niche, which exists of a rather homogenous

group of customers that is willing to pay premium prices for highly distinctive offerings (cf. Dalgic and Leeuw, 1994). By linking entitativity to members' perceptions of increased social and economic value, and to their willingness to invest in subscription fees, our results confirm that the concept serves as a value proposition for niche SNS. Moreover, entitativity has mainly been studied from the perspective of how individuals perceive out-groups, rather than how they see and respond to their own in-groups (Sherman et al., 1999; Yzerbyt et al., 2000). By studying the effects of in-group entitativity, we contribute to this literature stream more generally, also in the specific context of online social networks, where, to our knowledge, the concept has not hitherto been studied.

Second, this study adds insights to the ongoing academic debate on whether and when subscription-based online business models are successful (e.g., Dou, 2004; Enders et al., 2008; Pauwels and Weiss, 2008). In particular, we considered the specific case of niche SNS and introduced and empirically investigated factors that may impact members' willingness to invest. While according to some researchers it is almost impossible for online providers to capture economic value from SNS in the form of subscription fees (Ritzer and Jurgenson, 2010), others have started to explore ways to capitalize on members' online interactions. While these studies focused, for instance, on the quality of online content (Dou, 2004; Wang et al., 2005), or marketing practices (Pauwels and Weiss, 2008), we studied entitativity and social capital, two concepts that can be less easily controlled by online providers. The results of our empirical analysis confirmed that both concepts have a direct and positive impact on members' willingness to invest and thus favorably impact niche SNS providers' financial returns. These findings also contribute to the social capital literature, which has shown that online social capital can increase individuals' commitment towards communities in terms of investing time and efforts (Chiu et al., 2006; Mathwick et al., 2008; Wasko and Faraj, 2005). We add to these insights by confirming a positive impact on members' financial investment intentions. In addition to these direct effects, we also investigated indirect routes via social and economic value to be derived from social capital and entitativity. While entitativity positively impacted both types of value, social capital only seems to spur social value, while our hypothesis that it would also generate economic value was not supported. We described realized economic value as a consequence of informational value, which, according to Mathwick et al.'s (2008) study, is predicted by social capital. Our results suggest, however, that the underlying logic for economic value

might differ from how informational value is realized. As suggested by Adler and Kwon (2002: 31), strong community norms may hamper entrepreneurial activity as members of tight-knit communities may feel obliged to share their resources with their closest members, which could hence "slow the ac-cumulation of capital". The authors (p. 30) referred to this phenomenon as "overembeddedness" and warned of possible backfire effects of social capital, which may be reflected by our findings as well. Interestingly, our results suggest that entitativity drives economic value to a somewhat larger extent than social value, whereas the normative impact of social capital only affects social value (cf. beta values in Table 17). These outcomes suggest that these concepts, although they are both group phenomena, might serve different purposes and should thus not be used interchangeably.

Third, this study underscores the importance of considering member heterogeneity when investigating SNS members' motivations to invest financial resources. Our study shows that economic value acts as a driver only for regular members, whereas for premium members it is social value that elicits favorable investment intentions. These results suggest that regular members' online interactions might be characterized rather by exchange relationships, which are mostly motivated by self-interest and thus by economic value (Gassenheimer et al., 1998). Premium members' interactions, on the other hand, seem to resemble communal relationships, which are reflected by group solidarity and thus driven by social value (Gassenheimer et al., 1998). Our study hence supports the applicability of established relationship marketing principles to the specific context of online social networks. It provides preliminary evidence that free and fee-paying members of subscription-based SNS seem to be guided by different relationship principles and hence seek out different sources of customer value. Interestingly, even though we expected the impact of economic value on WtI to be rather weak for premium members relative to social value, it turned out to be even significantly negative. Seemingly, the realization of economic value has a detrimental effect on premium members' intentions to extend their paid membership period. Although we find this outcome rather surprising, it might be explained by the communal relationship paradigm among premium members. They do not only lack the expectation of receiving rewards for their efforts, but may even perceive economically motivated behavior as a social risk for the relationship (cf. Ryu and Feick, 2007). A similar explanation is provided by Habisch (in Werner and Spence, 2004), who

states that motivations typical of strong relationships, such as a sense of belonging or prevailing norms, can be damaged by monetary compensation. Premium members might therefore strongly reject economic value as a motivation for their financial investment into the social network.

Interestingly, post-hoc analyses revealed significant and positive moderating effects of entitativity for the paths connecting social/economic value respectively with WtI, however, only for regular members. These preliminary findings suggest that niche SNS members might be even more heterogeneous than previously assumed in our model. In particular, seemingly not all regular members are motivated equally by economic value. Rather, both economic and social value work as an incentive to pay membership fees only for those members who perceive high levels of entitativity. Regular members low in entitativity, however, are less likely to be motivated to upgrade their accounts by any kind of benefit. This latter group seems to resemble 'lurkers', one of four relationship types identified by Mathwick (2002). Lurkers use online environments to observe what others are doing, while they do not wish to actively engage in communal or exchange relationships themselves. Premium members, on the other hand, are closer to the communal end of Gassenheimer et al.'s (1998) relationship continuum, which has been associated with friendship and family relations and thus also with high entitativity, which might explain why their motivations to pay membership fees were not influenced by entitativity.

Managerial Implications

From a managerial perspective, this study offers useful insights and recommendations for niche SNS operators, but potentially for broader online networks as well. In view of an increasingly mature and competitive SNS landscape, SNS providers may wish to focus on one or several niches which they are able to serve better than their "big brothers" (Dalgic and Leeuw, 1994: 44). It has been suggested that many individuals find large SNS intimidating and do not feel comfortable sharing personal information with a highly diverse audience (Sharp, 2009). Rather, they wish to create close connections with a smaller audience in more purposeful networks, comparable to an "intimate dinner party com-prised of like-minded people with the same general focus or interest" (Sharp, 2009: 32). Niche SNS therefore need to define a unique value proposition which cements

members to the group, and sets it apart from competitors in members' minds. Entitativity has been suggested to have this effect and, according to our findings, even increases members' intentions to pay or extend their membership fees. Network operators should hence try to stimulate perceptions of entitativity among members, for instance, by identifying and communicating aspects that highlight members' common ground. Potential cues could be derived from the literature on the antecedents of entitativity (e.g., Campbell, 1958; Lickel et al., 2000). The niche SNS we investigated for the purpose of this study does so in several ways: first, as members are requested to indicate any educational institutions they attended upon registration, the focus is put on interactions with former classmates. Second, by focusing on stories, music and fashion from the past, active members are invited to share common memories from the time they went to school, which might again strengthen perceptions of belonging, or common interest.

Furthermore, this research suggests that the value sought by members differs for non-paying, regular members and fee-paying premium members, which bears important implications for SNS operators' marketing approaches. Based on our findings we suggest that for regular members, the focus of SNS facilities and marketing communications should be put on potential economic benefits. For instance, operators could consider providing more functionalities that lead to economic value, such as including website categories for job search, housing and for exchanging goods and services. For premium members, however, the focus should be reversed and stress group solidarity and the fun of interacting with others, while refraining from the communication of potential economic advantages.

Limitations and Future Research

This study is not without limitations. Despite the large sample size (n = 5,738) which increases generalizability of our findings for the specific niche SNS we investigated, future research should consider a variety of niche SNS in order to verify whether our results are representative across other online social networks as well. More specifically, future studies could include SNS of different size, geographic scope (e.g., local, regional, national) or topical interest to define the niche context based on a variety of factors. Moreover, while in this study we were interested whether and why entitativity spurs members' WtI in a niche SNS, future research could apply the concept to large, global online communities as well, or

even compare the impact of entitativity on WtI across niche and non-niche SNS. As broader, global SNS might have a variety of possibilities at their disposal to influence paying intentions relative to niche SNS, entitativity might be less important as a driver relative to other factors, an assumption that certainly requires further investigation.

As economic value has shown to encourage regular members to invest in the SNS, other factors that might complement entitativity in explaining how economic value is created could be explored in future research. The observation that entiatitivy and social capital only accounted for 13.4% of the variance in economic value suggests that there might be other, more influential aspects, which, however, still need to be explored.